

SunSet xDSL MRD

DATE : 10/30/97

Revision: Draft 4

Section 4 Revision: Draft 1

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Distribution: KC, PM, CP, TD, MM, CW, WC, RK, RC

Comments by  
Paul Marshallput page numbers on  
document

## Section 4 User Interface:

### 4.1 Introduction Screen

The MAIN MENU that is prevalent in all existing SunSets does not exist for the xDSL. There is simply an Introduction Screen which remains until the user presses a specific key. The Intro Screen also reappears when the user presses the ESC key enough times (dependent on the screen user is in).

Please refer to the xDSL Keypad Layout shown in Section 4.2

*Should always go somewhere where you can get something done at  
the user's power level*

1	12345678901234567890123456789012	1
2		2
3		3
4	(Sunrise Logo Here)	4
5		5
6	SunWare	6
7	xDSL	7
8		8
9	Press AUTO Key for auto test	9
0	OR	0
1	Press appropriate key for	1
2	manual testing	2
3		3
4		4
5	Version 0.00 S/N 0001	5
6	SUNRISE TELECOM, Inc. 1997	6
	12345678901234567890123456789012	

#### INTRODUCTION SCREEN

1. Always stays on until user presses a functionality key.
2. Also appears when user presses ESC key in any menu to get out of a certain function.
3. Note: AUTO Key will be developed in the future.

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## 4.2 KEYPAD LAYOUT

xDSL KEYPAD LABEL.rev 1 10/28/97  
SUNRISE TELECOM, INC. SIZE: 3.279" X 2.226" .07"R  
Notes: refer to sample for colors.



What are the LEDs?

#### 4.3 Digital Multimeter Screens

When the User pushes the DMM key, the following screen appears :

**DMM 1**

1	2345678901234567890123456789012	12:30:55	1
2			
3	DIGITAL MULTIMETER		
4	SELECT METER:		
5	DCV	5	
6	ACV	6	
7	DCA	7	
8	ACA	8	
9	OHM	9	
0	CAP	0	
1	DIODE	1	
2	TWO SET TEST		
3			
4			
5			
6			

12345678901234567890123456789012

This is the DMM Main Menu Screen.

1. From here, if the user presses the ESC key the INTRO Screen should appear.

How does the user  
know which two conductors  
measurement is made on?  
resistance S/b, measured tip/ring  
tip/ground ring/ground

The following are designs for the rest of the DMM screens:

**DMM 2**

1	2345678901234567890123456789012	12:30:55	1
2			
3	DIGITAL MULTIMETER		
4	METER: DCV		
5	READING: 111.1 mV		
6	(Note: Auto Range, so other possible readings are: 1.000 V, 10.00 V, 100.0 V)		
7			
8			
9			
0			
1			
2			
3			
4			
5			
6			

12345678901234567890123456789012

**DMM 3**

1	2345678901234567890123456789012	12:30:55	1
2			
3	DIGITAL MULTIMETER		
4	METER: ACV.		
5	READING: 2.222 V		
6	(Note: Auto Range, so other possible readings are: 40.00 V, 400.0 V)		
7			
8			
9			
0			
1			
2			
3			
4			
5			
6			

12345678901234567890123456789012

**DMM 4**

12345678901234567890123456789012  
1 12:30:55 1  
2  
3 DIGITAL MULTIMETER  
4  
5 METER: DCA  
6  
7  
8 READING: 33.33 mA  
9  
0 (Note: Auto Range, so other possible readings are:  
1 400.0 mA)  
2  
3  
4  
5  
6

12345678901234567890123456789012

**DMM 5**

12345678901234567890123456789012  
1 12:30:55 1  
2  
3 DIGITAL MULTIMETER  
4  
5 METER: ACA  
6  
7  
8 READING: 44.44 mA  
9  
0 (Note: Auto Range, so other possible readings are:  
1 400.0 mA)  
2  
3  
4  
5  
6

12345678901234567890123456789012

**DMM 6**

12345678901234567890123456789012  
1 12:30:55 1  
2  
3 DIGITAL MULTIMETER  
4  
5 METER: OHM  
6  
7  
8 READING: 555.1 Ω  
9  
0 (Note: Auto Range, so other possible readings are:  
1 4000Ω, 40.00 kΩ, 400.0 kΩ, 4000 kΩ, 40.00 MΩ  
2  
3  
4  
5  
6

12345678901234567890123456789012

**DMM 7**

12345678901234567890123456789012  
1 12:30:55 1  
2  
3 DIGITAL MULTIMETER  
4  
5 METER: CAP  
6  
7  
8 READING: 5.555 nF  
9  
0 (Note: Auto Range, so other possible readings are:  
1 50.00 nF, 400.0 nF, 5.000 uF, 50.00 uF  
2  
3  
4  
5  
6

12345678901234567890123456789012

**DMM 8**

12345678901234567890123456789012  
1 12:30:55 1  
2  
3 DIGITAL MULTIMETER  
4  
5 METER: DIODE  
6  
7  
8 READING: 2.222 V  
9  
0  
1  
2  
3  
4  
5  
6

12345678901234567890123456789012

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**DMM 9a**

1	12345678901234567890123456789012	12:30:55	1
2			2
3	DIGITAL MULTIMETER	3	
4	TWO SET TESTING	4	
5		5	
6	MODE: MEASURE, SLAVE	6	
7		7	
8		8	
9		9	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	

The DMM Two Set Testing is still in the planning stages. It is not crucial for the initial product release.

1. The idea is to have a second set provide the proper termination at the far end - open, short, term.
2. The "MEASURE" mode is the master unit. It performs measurements.
3. The "SLAVE" mode is the slave unit.

12345678901234567890123456789012

**DMM 9b**

1	12345678901234567890123456789012	12:30:55	1
2			2
3	DIGITAL MULTIMETER	3	
4	TWO SET TESTING	4	
5		5	
6	MODE : MEASURE	6	
7	METER: OHM, ACV	7	
8		8	
9	SLAVE LOAD:TERM, OPEN, SHORT	9	
0	READING: 555.1 Ω	0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	

12345678901234567890123456789012

**DMM 9c**

1	12345678901234567890123456789012	12:30:55	1
2			2
3	DIGITAL MULTIMETER	3	
4	TWO SET TESTING	4	
5		5	
6	MODE:SLAVE	6	
7	TERMINATION: OPEN, SHORT, TERM	7	
8		8	
9		9	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	

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#### 4.4 TDR Screens

When the User pushes the TDR key, the following screen appears :

##### TDR 1

1	12345678901234567890123456789012	12:30:55
2		
3		
4		TDR <i>Feet Meters</i>
5	UNITS : U.S., METRIC	
6	MODE : AUTO, MANUAL	
7	GAUGE : 19 AWG, 22, 24, 26, 28	
8		
9		
0		
1		
2		
3		
4		
5		
6		START
7	12345678901234567890123456789012	

1. The User must first select desired units.
2. There are two modes: AUTO and MANUAL
3. For the AUTO mode, after entering the GAUGE, a START F4 key will appear. Pressing the "START" key will begin the test.

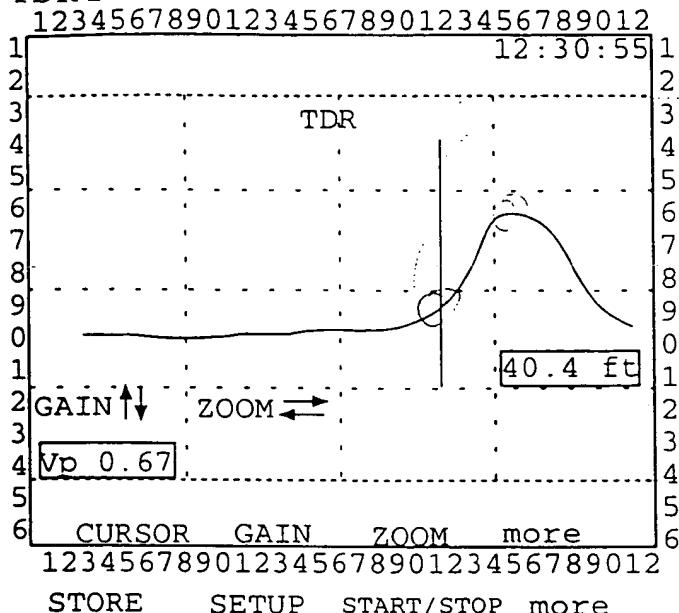
*Unit should a user care  
Should it always be .992*

##### TDR 1a

1	12345678901234567890123456789012	12:30:55
2		
3		
4		TDR
5	UNITS : U.S.	
6	MODE : MANUAL	
7	GAUGE : 19 AWG, 22, 24, 26, 28	
8	Vp : +.01, -.01, +.1, -.1	
9	PULSE : 20, 100, 470 ns, 1, 3, 5 us	
0		
1		
2		
3		
4		
5		
6		START
7	12345678901234567890123456789012	

4. For the MANUAL mode, the Vp and PULSE fields appear.
5. For Vp, the User can increase or decrease the value in .01 or .1 increments between a range of (0.4 to 0.99)
6. For PULSE width, user can select among six selections. (Tektronix TS100 offers 4 choices).
7. After the PULSE width is selected, the "START" F4 key will appear. Pressing this key will begin the test.

TDR 2



6. The CURSOR can be accessed at any time by pressing the CURSOR F1 key or by pressing the ESC key from the GAIN or ZOOM mode.
7. If "MANUAL" mode was selected, then a SETUP F-key will be available. This provides access to the TDR 1A screen.
8. At any time, the pulse can be launched again by pressing the START/STOP Key.

Note: The dotted lines are for reference only

1. The "START" key from the previous screen leads to this screen. The pulse is launched immediately and the reflection is shown.
2. The initial reflection should appear on Row 2, Column 4 whenever possible.
2. The User has immediate control of the vertical line cursor, using the right/left arrow keys. A distance readout is displayed corresponding to the cursor position. *is this up or just 1/2*
3. The  $V_p$  is shown.
4. The GAIN can be changed by pressing the F2 key.
  - a. This activates the UP arrow and DN arrow keys for adjusting the GAIN control.
  - b. The  $GAIN \uparrow$  will appear when F2 key is pressed, which alerts the user to use the up and down arrow keys.
5. The ZOOM can be accessed by pressing the F3 key. The LEFT and RIGHT arrow keys are activated for ZOOM control.
  - a. The  $ZOOM \leftarrow$  will appear when F3 key is pressed, which alerts the user to use the LEFT and RIGHT arrow keys.

*How does it get out of these modes? Should they just be continuously active? How do you from moving the cursor left/right to changing the zoom to*

9. The User has the option to store results by pressing the STORE F1 key.
10. For the LABEL category, we need to implement soft key alphabet because no hard keys available.

12345678901234567890123456789012

12:30:55

TDR MEASUREMENT - STORAGE

No. DATE-YMD TIME-YMD LABEL

CUR 97-10-31 15:23:11 WATER

001 97-07-04 11:11:22 OPEN

002 97-07-04 10:21:54 LOAD COIL

003 97-06-02 22:22:31 SHORT

VIEW DELETE STORE more

LABEL PRINT CLR-ALL more

RESULTS PAGE-UP PAGE-DN more

12345678901234567890123456789012

*How do I go back from here to other screen?*

## 4.5 LOSS Measurement Screens

When the User pushes the LOSS key, the following screen appears :

## LOSS 1

Master Set

## LOSS 2A

1. Notice Status Indication Area on Top right and left- Line 2.  
a. It shows "Idle" right now
2. Either side can initiate the CONNECT F1 key. This establishes the connection between Master and Slave.

1. MEASURE Mode is for the Master Unit  
SEND mode is for the Slave Unit
2. The TONE is determined only by the  
MEASURE unit.
  - a. DMT is all 256 carrier freq.
  - b. ALL means 10, 192, 256, 512, 1.1 Mb/s

40 kHz - JSON FRT  
772 kHz - T1

Rather than doing master slave,  
why not just cycle through the  
selected tones - Master & Slave  
need not communicate. The sender &  
through the selected frequencies. The  
Slave Sel. is for its start  
frequency, then go

LOSS 2B Measured info, frequency, memory, 11  
12345678901234567890123456789012 11  
1 12:30:55 1 SC  
2 > Idle < 2 1  
3 3 3  
4 LOSS MEASUREMENT 4  
5 5 5  
6 MODE: SEND 6  
7 FREQUENCY: 192 kHz 7  
8 8 8  
9 9 9  
0 0 0  
1 1 1  
2 2 2  
3 3 3  
4 4 4  
5 5 5  
6 CONNECT 6  
12345678901234567890123456789012 6

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## Master Set

### LOSS 3A

```
12345678901234567890123456789012  
1 12:30:55  
2 > Connecting  
3  
4 LOSS MEASUREMENT  
5  
6 MODE: MEASURE  
7 FREQUENCY:192 kHz  
8  
9  
0  
1  
2  
3  
4  
5  
6  
12345678901234567890123456789012
```

LOSS 14

1. Pressing the START F1 Key initiates the test.

they initiates the test

## Slave Set

### LOSS 3B

```
12345678901234567890123456789012  
12:30:55  
> Connecting  
1  
2  
3  
4 LOSS MEASUREMENT  
5  
6 MODE : SEND  
7 FREQUENCY : 192 kHz  
8  
9  
0  
1  
2  
3  
4  
5  
6  
12345678901234567890123456789012
```

## LOSS 4B

12345678901234567890123456789012  
1 12:30:55 1  
2 >Connected < 2  
3 3  
4 LOSS MEASUREMENT 4  
5 5  
6 MODE: SEND 6  
7 FREQUENCY:192 kHz 7  
8 8  
9 9  
0 0  
1 1  
2 2  
3 3  
4 4  
5 5  
6 6

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## Master Set

## LOSS 5A

```

12345678901234567890123456789012
1 12:30:55 1
2 >Connected Testing < 2
3
4 LOSS MEASUREMENT 4
5
6 MODE: MEASURE 6
7 FREQUENCY:192 kHz 7
8
9
0
1
2
3
4
5
6

```

12345678901234567890123456789012

## LOSS 6A

```

12345678901234567890123456789012
1 12:30:55 1
2 >Connected Complete < 2
3
4 LOSS MEASUREMENT 4
5
6 MODE: MEASURE 6
7 FREQUENCY:192 kHz 7
8
9
0
1
2
3
4
5
6

```

12345678901234567890123456789012

1. RESULTS F-Key leads to RESULTS screen.

*Results should automatically display when measurement is complete*

## Slave Set

## LOSS 5B

```

12345678901234567890123456789012
1 12:30:55 1
2 >Connected Testing < 2
3
4 LOSS MEASUREMENT 4
5
6 MODE: SEND 6
7 FREQUENCY:192 kHz 7
8
9
0
1
2
3
4
5
6

```

12345678901234567890123456789012

## LOSS 6B

```

12345678901234567890123456789012
1 12:30:55 1
2 >Connected Complete < 2
3
4 LOSS MEASUREMENT 4
5
6 MODE: SEND 6
7 FREQUENCY:192 kHz 7
8
9
0
1
2
3
4
5
6

```

1234567890123456789012345678901



## Master Set

## LOSS 7A

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	Complete	2
3	RESULTS - LOSS MEASUREMENT		3
4	(kHz) (dBm)	(kHz) (dBm)	4
5	192 17		5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
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9			9
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7			7
8			8
9			9
0			0
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6			6
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9			9
0			0
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9			9
0			0
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3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
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5			5
6			6
7			7
8			8
9			9
0			0
1			1
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6			6
7			7
8			8
9			9
0			0
1			1
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9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
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7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
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0			0
1			1
2			2
3			3
4			4
5			5
6			6
7			7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5

## 4.6 NOISE Measurement Screens

When the User pushes the NOISE key, the following screen appears :

## NOISE 1

1. User first designates Signal to Noise (S/N) or Wideband (WIDE) measurement.
2. MEASURE Mode is for the Master Unit  
SEND mode is for the Slave Unit
3. The TONE is determined only by the  
MEASURE unit.
  - a.DMT is all 256 carrier freq.
  - b.ALL means 10, 192, 256, 512, 1.1 Mhz

for S/N operation Define Filter characteristics  
 Previous filter for S/N measurement  
 Previous filter for QUIET measurements.  
 WIDEBAND filter  
 input 10 KHz to 4 MHz.

#### 4.6.1 SIGNAL TO NOISE Measurement Screens

### Master Set

S/N 2A

S/N 2B

1. Notice Status Indication Area on Top right and left- Line 2.  
a, It shows "Idle" right now
2. Either side can initiate the CONNECT F1 key. This establishes the connection between Master and Slave.

## Master Set

S/N 3A

1	12345678901234567890123456789012	12:30:55	1
2	>	Connecting	2
3			3
4	S/N MEASUREMENT		
5			4
6	MODE: MEASURE	6	5
7	FREQUENCY:192 kHz	7	6
8		8	
9		9	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	

12345678901234567890123456789012

## Slave Set

S/N 3B

1	12345678901234567890123456789012	12:30:55	1
2	>	Connecting	2
3			3
4	S/N MEASUREMENT		
5			4
6	MODE: SEND	6	5
7	FREQUENCY:192 kHz	7	6
8		8	
9		9	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	

12345678901234567890123456789012

S/N 4A

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	<	2
3			3
4	S/N MEASUREMENT		
5			4
6	MODE: MEASURE	6	5
7	FREQUENCY:192 kHz	7	6
8		8	
9		9	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6	START	6	

12345678901234567890123456789012

S/N 4B

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	<	2
3			3
4	S/N MEASUREMENT		
5			4
6	MODE: SEND	6	5
7	FREQUENCY:192 kHz	7	6
8		8	
9		9	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	

12345678901234567890123456789012

Just show the  
result.  
"MEASURING"  
Say "result is ready"  
before result is ready  
14/20 G

## Master Set

S/N 5A

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	Testing <	2
3	S/N MEASUREMENT		
4	MODE: MEASURE		
5	FREQUENCY: 192 kHz		
6	012345678901234567890123456789012		

12345678901234567890123456789012

S/N 6A

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	Complete <	2
3	S/N MEASUREMENT		
4	MODE: MEASURE		
5	FREQUENCY: 192 kHz		
6	RESULTS	RESTART	5

12345678901234567890123456789012

Just display  
the results

## Slave Set

S/N 5B

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	Testing <	2
3	S/N MEASUREMENT		
4	MODE: SEND		
5	FREQUENCY: 192 kHz		
6	012345678901234567890123456789012		

12345678901234567890123456789012

S/N 6B

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	Complete <	2
3	S/N MEASUREMENT		
4	MODE: SEND		
5	FREQUENCY: 192 kHz		
6	012345678901234567890123456789012		

12345678901234567890123456789012

Just have it  
send continuou  
ly until user escapes  
out.

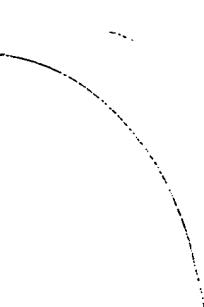
## Master Set

S/N 7A

12345678901234567890123456789012

1	>Connected		12:30:55	1	
2	Complete		<2		
3	RESULTS - S/N MEASUREMENT				3
4	(kHz)	(dB)	(kHz)	(dB)	4
5	192	32			5
6					6
7					7
8					8
9					9
0					0
1					1
2					2
3					3
4					4
5					5
6	PG-UP	PG-DN	GRAPH	STORE	6

12345678901234567890123456789012



S/N 8A

12345678901234567890123456789012

1	S/N vs. FREQ		12:30:55	1	
2	192 kHz		<2		
3	-32 dB		3		
4			4		
5			5		
6			6		
7			7		
8			8		
9			9		
0			0		
1			1		
2			2		
3			3		
4			4		
5			5		
6	ZM-IN	ZM-OUT	JUMP L	JUMP R	6

12345678901234567890123456789012

1. The GRAPH function key leads to this screen.
2. JUMP L = Jump Left  
JUMP R = Jump Right
3. a. These function keys control the cursor.  
b. The readout is boxed above the graph
4. ZM-IN F-key zooms into narrow range. ZM-OUT F-key zooms back out.

Note: How many lines are possible? 60 to 70?  
This screen will be better defined later.

UNIFY

S/N 9A

12345678901234567890123456789012

1	S/N MEASUREMENT - STORAGE		12:30:55	1	
2			2		
3	No. DATE-YMD TIME-YMD LABEL		3		
4	5		4		
5	CUR	97-10-31	15:23:11	FREMONT 1	5
6	7001	97-07-04	11:11:22	GOOD PAIR	6
7	8002	97-07-04	10:21:54	BAD PAIR	7
8	9003	97-06-02	22:22:31	UKIAH 1	8
9					9
0					0
1					1
2					2
3					3
4	VIEW	DELETE	STORE	more	4
5	LABEL	PRINT	CLR-ALL	more	5
6	RESULTS	PAGE-UP	PAGE-DN	more	6

11/20

#### 4.6.2 WIDEBAND NOISE Measurement Screens

When the User pushes the NOISE key, the following screen appears :

##### NOISE - WB 1

```

12345678901234567890123456789012
12345678901234567890123456789012 12:30:55
1
2
3 NOISE MEASUREMENT
4
5 TYPE: S/N, WIDE
6 MODE: MEASURE, SEND
7 TONE: DMT, 10 khz, 192 khz,
8 256 khz, 512 khz,
9 1.1 MHz, ALL
0
1
2
3
4
5
6

```

1. User designates Wideband Noise (WIDE) for TYPE.
2. MEASURE Mode is for the Master Unit SEND mode is for the Slave Unit
3. For TONE, only selection is DMT

12345678901234567890123456789012

##### Master Set

##### WB 2A

```

12345678901234567890123456789012
12345678901234567890123456789012 12:30:55
1> Idle <2
2>
3
4 WIDEBAND NOISE MEASUREMENT
5
6 MODE: MEASURE
7 FREQUENCY: DMT
8
9
0
1
2
3
4
5
6 CONNECT

```

12345678901234567890123456789012

##### Slave Set

##### WB 2B

```

12345678901234567890123456789012
12345678901234567890123456789012 12:30:55
1> Idle <2
2>
3
4 WIDEBAND NOISE MEASUREMENT
5
6 MODE: SEND
7 FREQUENCY: DMT
8
9
0
1
2
3
4
5
6 CONNECT

```

12345678901234567890123456789012

*This is a S~~SN~~ - measurement*

1. Notice Status Indication Area on Top right and left- Line 2.
  - a, It shows "Idle" right now
2. Either side can initiate the CONNECT F1 key. This establishes the connection between Master and Slave.

## Master Set

## WB 3A

```

12345678901234567890123456789012
1 12:30:55
2 > Connecting < 2
3
4 WIDEBAND NOISE MEASUREMENT 4
5
6 MODE: MEASURE 6
7 FREQUENCY: DMT 7
8
9
0
1
2
3
4
5
6
12345678901234567890123456789012

```

## Slave Set

## WB 3B

```

12345678901234567890123456789012
1 12:30:55
2 > Connecting < 2
3
4 WIDEBAND NOISE MEASUREMENT 4
5
6 MODE: SEND 6
7 FREQUENCY: DMT 7
8
9
0
1
2
3
4
5
6
12345678901234567890123456789012

```

## WB 4A

```

12345678901234567890123456789012
1 >Connected 12:30:55
2 < 2
3
4 WIDEBAND NOISE MEASUREMENT 4
5
6 MODE: MEASURE 6
7 FREQUENCY: DMT 7
8
9
0
1
2
3
4
5
6
START 5
12345678901234567890123456789012

```

## WB 4B

```

12345678901234567890123456789012
1 12:30:55
2 >Connected < 2
3
4 WIDEBAND NOISE MEASUREMENT 4
5
6 MODE: SEND 6
7 FREQUENCY: DMT 7
8
9
0
1
2
3
4
5
6
12345678901234567890123456789012

```

## Master Set

## WB 5A

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	Testing <	2
3			3
4	WIDEBAND NOISE MEASUREMENT		4
5			5
6	MODE: MEASURE		6
7	FREQUENCY: DMT		7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6

12345678901234567890123456789012

## Slave Set

## WB 5B

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	Testing <	2
3			3
4	WIDEBAND NOISE MEASUREMENT		4
5			5
6	MODE: SEND		6
7	FREQUENCY: DMT		7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6

12345678901234567890123456789012

## WB 6A

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	Complete <	2
3			3
4	WIDEBAND NOISE MEASUREMENT		4
5			5
6	MODE: MEASURE		6
7	FREQUENCY: DMT		7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6	RESULTS      RESTART		6

12345678901234567890123456789012

AC immediately  
to results

## WB 6B

1	12345678901234567890123456789012	12:30:55	1
2	>Connected	Complete <	2
3			3
4	WIDEBAND NOISE MEASUREMENT		4
5			5
6	MODE: SEND		6
7	FREQUENCY: DMT		7
8			8
9			9
0			0
1			1
2			2
3			3
4			4
5			5
6			6

12345678901234567890123456789012

Keep testing  
through freqs  
if necessary

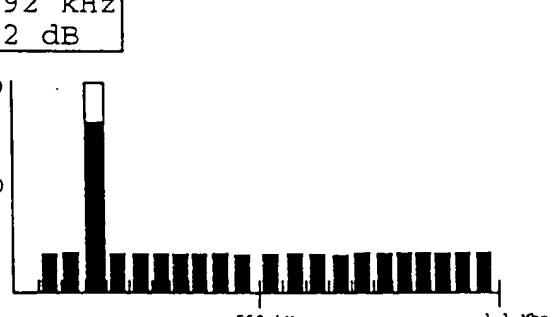
## Master Set

WB 7A

1	12345678901234567890123456789012	12:30:55	1		
2			2		
3	RESULTS - WB MEASUREMENT		3		
4	(kHz)	(dB)	(kHz)	(dB)	4
5	10	5	54	5	5
6	14	6	58	6	6
7	18	5	62	5	7
8	22	6	66	6	8
9	26	5	70	5	9
0	30	6	74	6	0
1	34	5	78	5	1
2	38	6	82	6	2
3	42	5	86	5	3
4	46	6	90	6	4
5	50	5	94	5	5
6	PG-UP	PG-DN	GRAPH	STORE	6
	12345678901234567890123456789012				

UNIFY

WB 8A

1	12345678901234567890123456789012	12:30:55	1		
2			2		
3	WIDEBAND NOISE		3		
4	192 kHz		4		
5	32 dB		5		
6			6		
7	40		7		
8	20		8		
9	0		9		
10	1		10		
11	2		11		
12	3		12		
13	4		13		
14	5		14		
15	6		15		
16	ZM-IN	ZM-OUT	JUMP L	JUMP R	6
	12345678901234567890123456789012				

1. The GRAPH function key leads to this screen.
2. JUMP L = Jump Left  
JUMP R = Jump Right
3. a. These function keys control the cursor.  
b. The readout is boxed above the graph
4. The first graph has range from 10 kHz to 1.1 Mhz
5. ZM-IN F-key zooms into narrow range. ZM-OUT F-key zooms back out.

Note: How many lines are possible? 60 to 70?  
This screen will be better defined later.

WB 9A

1	12345678901234567890123456789012	12:30:55	1		
2			2		
3	WB MEASUREMENT - STORAGE		3		
4			4		
5	No. DATE-YMD TIME-YMD LABEL		5		
6	CUR 97-10-31 15:23:11 FREMQNT 1		6		
7	001 97-07-04 11:11:22 GOOD PAIR		7		
8	002 97-07-04 10:21:54 BAD PAIR		8		
9	003 97-06-02 22:22:31 UKIAH 1		9		
0			0		
1			1		
2			2		
3			3		
4	VIEW	DELETE	STORE	more	4
5	LABEL	PRINT	CLR-ALL	more	5
6	RESULTS	PAGE-UP	PAGE-DN	more	6
	12345678901234567890123456789012				

20/20  
G